A MITE FROM A BEEHIVE ON SINGAPORE ISLAND (ACARINA:LAELAPTIDAE).

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(Five Text-figures.)

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Synopsis.

Four mites found in separate brood capsules in a hive of *Apis indica* are described as *Myrmozercon reidi*, n. sp. It is thought likely that they belong to an undescribed genus; they are quite close to *Myrmozercon* but it is felt that the erection of a new genus on nymphal characters alone is not justified.

These mites were found in November, 1944, and given to me by Mr. John Reid, Entomologist from the Institute for Medical Research at Kuala Lumpur (at the time a member of the Federated Malay States Volunteer Forces, and a prisoner of war in Changi Camp). While investigating mortality among bees (*Apis indica*) in one of the hives kept for the camp hospital, he found four mites sealed in separate brood capsules. The mites were alive and apparently feeding on the bee pupae; one mite actually had its proboscis inserted into a pupa. There was no shed mite skin in any of the brood capsules (*i.e.*, there was no evidence that any stage of metamorphosis had taken place while the mites had been enclosed in the capsules).

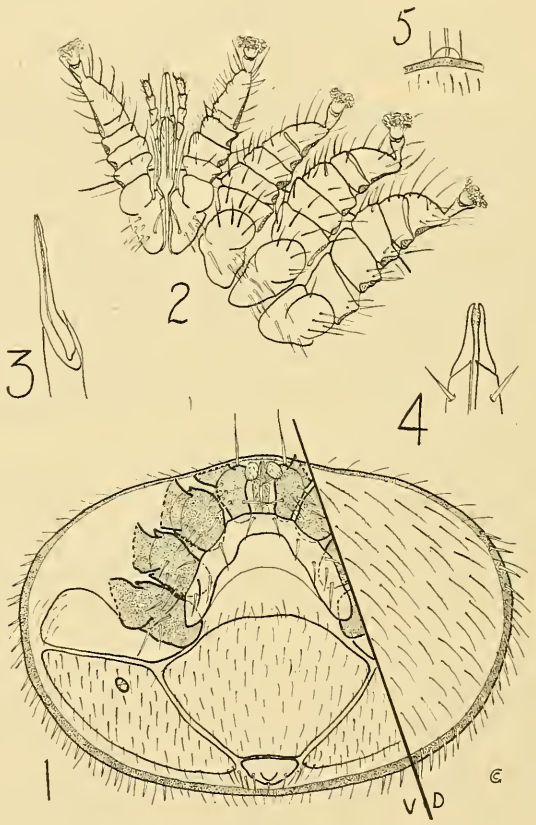
The cause of the trouble among the bees was wax moth (probably family Galleriidae). Careful search revealed no more mites, in any stage, and it was finally assumed that the ones found must have attached themselves to foraging bees and so been transported into the hive, where they had managed to enter the brood capsules, being sealed up with the pupae. That four were found among less than two hundred capsules opened seems to indicate that this is a common occurrence, possibly the normal habit of the mite.

Three of these mites are smaller than the fourth and have the anal plate separate from the ventral plate, whereas in the fourth the anal plate is closely attached to, probably fused with, the ventral plate. One of the smaller ones was dissected and was found to have a testis overlying each second coxa. I can find no genital opening on any of the specimens, and it seems, therefore, that these are all deutonymphs, the smaller ones male, the larger one female. They are quite close to the genus *Myrmozercon*, and while it is likely that they belong to some as yet undescribed genus, I do not feel justified in erecting a new one on nymphal characters alone, and so I include them in *Myrmozercon*.

Myrmozercon reidi, n. sp.

Deutonymph: Body a transverse ellipse with a slight, smoothly-rounded projection anteriorly; almost half as wide again as long; flattened, dorsum convex, venter concave. Male: L. 1050μ to 1090μ, W. 1500μ to 1540μ; female: L. 1125μ, W. 1600μ. Colour brown. A single dorsal shield covering the whole body, with a narrow thickened margin, smooth, bearing setae as follows: general surface with sparsely-set fine setae up to 150μ long, about 50μ apart, those on the anterior half bearing minute setules, those on the posterior half plain; from the inner edge of the thickened margin arise fine plain setae 75μ to 150μ long; at the sides, from two-fifths to four-fifths of the distance back around the circumference, arising from the middle of the thickened margin, are stout, sharply-tapering spines averaging 77μ in the male, 85μ in the female, from 20 to 25 at each side; all setae and spines pointing posteriorly or postero-laterally.

Venter: Coxae close together, set in a semicircle well forward under the body, coxae i at the anterior margin. The proboscis and palps completely retractable; when retracted they lie between coxae i (Text-fig. 1), but when they are projected coxae i move close together (Text-fig. 2), almost as if their squeezing action were forcing and holding the mouthparts forward. An arch-shaped sternal plate overlies the tips of the coxae; it bears five pairs of strong, stout, tapering spines as follows: one medial to the tip of coxa i, one opposite the tip of coxa ii, and three overlying the tip of coxa iii (there are neither metasternal plates nor epigynal shield, so, following Trägårdh, it would seem that this sternal plate represents the fusion of all these, since it bears



Myrmozercon reidi, n. sp.

1, Composite dorsal and ventral view; proboscis retracted between coxae i. 2, Ventral view of appendages; proboscis projected and coxae i approximated. 3, Chelicerae and flagellum. 4, Hypostome and lingula. 5, Dorsal view of epistome.

five pairs of setae). Ventral plate pentagonal, occupying most of the posterior central region, its lateral tips behind coxae iv, its anterior point smoothly rounded, its posterior tip flattened; covered with sparsely-set short plain setae which extend forwards for three rows on to the integument. Anal plate small, triangular, placed at the posterior margin of the body; separated from the ventral plate by a narrow strip of integument in the male, but in the female closely applied to, apparently fused with, the ventral plate; anus with an anterior, backward-pointing triangular flap; a stout sharp seta at each side of the anus and a shorter, more slender median seta at the posterior tip of the anal plate; two stout setae on the strip of integument at each side of the anal plate. Stigmata well behind the lateral ends of coxae iv; peritreme large, almost two and a half times as long as wide, triangular, its apex curving back to alongside the anal

Controlled pollination of *Eucalyptus*.